CLAIMS:

1. A system for dynamically protecting a vulnerable device from an ESD event comprising:

an ESD event sensor, operable to detect the ESD event and provide a first signal when the ESD event is detected; and

a breakdown voltage adjustment circuit connected to the ESD event sensor and to the vulnerable device, wherein the breakdown voltage adjustment circuit receives the first signal from the ESD event sensor and adjusts a breakdown voltage of the vulnerable device in response to the first signal.

2. The system of claim 1, wherein the ESD event sensor comprises a zener diode.

3. The system of claim 1, wherein the ESD event sensor comprises an RC trigger.

4. The system of claim 1, wherein the breakdown voltage adjustment circuit comprises a mirror.

5. The system of claim 1, wherein the breakdown voltage adjustment circuit adjusts the breakdown voltage of the vulnerable device by reducing a voltage on a base of the vulnerable device below a turn-on voltage of the vulnerable device.

6. The system of claim 1, wherein the vulnerable device is a transistor comprising a base, a collector, and an emitter; and wherein the breakdown voltage adjustment circuit adjusts the breakdown voltage of the vulnerable device from the

normal operating condition to a breakdown voltage from the collector to the emitter with the base shorted to the emitter, during an ESD event.

7. The system of claim 1, wherein the ESD event sensor senses an end of the ESD event and provides a second signal when the end of the ESD event is sensed, and wherein the breakdown voltage adjustment circuit returns the vulnerable device to normal operation in response to the second signal.

8. A system for protecting a vulnerable device from an ESD event comprising:

means for sensing the ESD event and providing a first signal when the ESD event is sensed; and

means for adjusting a breakdown voltage of the vulnerable device in response to the first signal from the means for sensing the ESD event.

9. The system of claim 8, wherein the means for sensing the ESD event senses the ESD event by monitoring a voltage magnitude on an I/O pad.

10. The system of claim 8, wherein the means for sensing the ESD event senses the ESD event by monitoring a rate of change of a voltage on an I/O pad.

11. The system of claim 8, further comprising:

means for sensing the end of the ESD event, and providing a second signal when the end of the ESD event is sensed; and

means for returning the vulnerable device to normal operation in response to the second signal from the means for sensing the end of the ESD event.

12. A method for dynamically adjusting a breakdown voltage of a vulnerable device comprising:

adjusting the breakdown voltage of the vulnerable device in response to a sensed ESD event; and

returning the vulnerable device to normal operation after the ESD event is over.

13. The method of claim 12, wherein the ESD event is sensed by an ESD event sensor.

14. The method of claim 12, wherein the vulnerable device comprises a transistor, and wherein the step of adjusting the breakdown voltage of the vulnerable device comprises reducing a voltage on a base of the transistor below a base-emitter turn-on voltage of the transistor.

15. The method of claim 12, wherein the vulnerable device is a transistor comprising a base, a collector, and an emitter; and wherein the step of adjusting the breakdown voltage of the vulnerable device comprises adjusting the breakdown voltage of the vulnerable device from the normal operating condition to a breakdown voltage from the collector to the emitter when the base is shorted to the emitter.